



Inductive sensor

IEB2003BARKG/V4A/2M/PUR



Product characteristics

Output function		normally open
Sensing range	[mm]	3
Housing		threaded type
Dimensions	[mm]	M8 x 1 / L = 27.5

Application

Application	Suitable for industrial, mobile, cooling and lubricating applications; Industrial applications / factory automation; Use in mobile and harsh applications
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Electrical data

Operating voltage	[V]	10...30 DC
Protection class		III
Reverse polarity protection		yes

Outputs

Output function		normally open
Max. voltage drop switching output DC	[V]	2.5
Minimum load current	[mA]	2
Max. leakage current	[mA]	0.5
Permanent current rating of switching output DC	[mA]	100
Switching frequency DC	[Hz]	800
Short-circuit protection		yes
Overload protection		yes

Detection zone

Sensing range	[mm]	3
Real sensing range Sr	[mm]	3 ± 10 %
Operating distance	[mm]	0...2.43

Accuracy / deviations

Correction factor		steel: 1 / stainless steel: 0.7 / brass: 0.4 / aluminium: 0.4 / copper: 0.3
Hysteresis	[% of Sr]	1...20
Switch point drift	[% of Sr]	-10...10

Operating conditions

Ambient temperature	[°C]	-40...85
Protection		IP 65; IP 66; IP 67; IP 68; IP 69K



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Tests / approvals		
EMC	EN 61000-4-2 ESD	4 kV CD / 8 kV AD
	EN 61000-4-3 HF radiated	10 V/m
	EN 61000-4-4 Burst	2 kV
	EN 61000-4-6 HF conducted	10 V
	EN 55011	class B
Vibration resistance	EN 60068-2-6 Fc	20 g (10...3000 Hz) / 50 sweep cycles, 1 octave per minute, in 3 axes
Shock resistance	EN 60068-2-27 Ea	100 g 11 ms half-sine; 3 shocks each in every direction of the 3 coordinate axes
Continuous shock resistance	EN 60068-2-27 Ea	40 g 6 ms; 4000 shocks each in every direction of the 3 coordinate axes
Fast temperature change	EN 60068-2-14 Na	TA = -40 °C; TB = 85 °C; t1 = 30 min; t2 = < 10 s; 50 cycles
Salt spray test	EN 60068-2-52 Kb	severity level 5 (4 test cycles)
MTTF [years]		1811
Embedded software included		yes
UL approval	Ta	-25...70 °C
	Enclosure type	Type 1
	power supply	Limited Voltage/Current
	UL Approval no.	A036
	File number UL	E174191
Mechanical data		
Weight [g]		35.8
Housing		threaded type
Mounting		flush mountable
Dimensions [mm]		M8 x 1 / L = 27.5
Thread designation		M8 x 1
Materials		stainless steel (316L/1.4404); sensing face: LCP white; LED window: PEI; lock nuts: stainless steel (316L/1.4404)
Tightening torque [Nm]		A = 5 mm: 2 Nm; B: 5 Nm
Displays / operating elements		
Display	switching status	1 x LED, yellow
Accessories		
Items supplied		lock nuts: 2
Remarks		
Pack quantity		1 pcs.

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Electrical connection

Cable: 2 m, PUR, Ø 2.9 mm; 2 x 0.14 mm²

Connection



	Core colours
BN	brown
BU	blue

Diagrams and graphs

Installation

